Phlogacanthus magnus, a new combination in the Acanthaceae from Malaysia

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ABSTRACT. An examination of the type material of *Gymnostachyum magnum* C.B.Clarke (Acanthaceae) from Malaysia reveals that it is a *Phlogacanthus* rather than a *Gymnostachyum* due to having two staminodes in addition to the two fertile stamens and muticous anther-thecae. The new combination, *Phlogacanthus magnus* (C.B.Clarke) Y.F.Deng is therefore proposed.

Keywords. Acanthaceae, *Gymnostachyum*, Malaysia, *Phlogacanthus*

Introduction

Gymnostachyum Nees is a genus of about 30 species of Acanthaceae distributed in the Asian tropics (Mabberley, 2008; Hu et al., 2011). It belongs to tribe Andrographideae together with *Andrographis* Nees, *Phlogacanthus* Nees, *Cystacanthus* T.Anderson, *Diotacanthus* Benth., *Graphandra* Imlay, *Haplanthodes* Kuntze and *Indoneesiella* Sreem. (Lindau, 1895; Scotland, 1992; Scotland & Vollesen, 2000; Stevens, 2014; McDade et al., 2008).

For the Malay Peninsula, Clarke (1908) recognised eleven species of *Gymnostachyum*, including ten new species, and Ridley (1923) recognised 13 species. They also suggested that *Phlogacanthus* and *Gymnostachyum* might be united into a single genus but this is in part because they confused the circumscription of *Gymnostachyum* and *Phlogacanthus*. *Phlogacanthus*, a genus of about 35 species distributed in tropical regions of Asia, can be easily distinguished from *Gymnostachyum* by having two staminodes, in addition to the two fertile stamens, and muticous anther-thecae (Hu et al., 2011; Xia & Deng, 2013). In *Gymnostachyum*, the staminodes are absent and one or both of anther-thecae are mucronate at the base. The separation of *Phlogacanthus* from *Gymnostachyum* is also supported by molecular evidence (McDade et al., 2008). During a visit to Singapore Botanic Gardens' Herbarium in 2013, I had the opportunity to examine the type material of *Gymnostachyum magnum* C.B.Clarke, one of species described by Clarke (1908). *Gymnostachyum magnum* has two stamens, two staminodes and muticous anther-thecae, characters that conform well to *Phlogacanthus*. Therefore, the new combination, *Phlogacanthus magnus* (C.B.Clarke) Y.F.Deng, is proposed below.

Phlogacanthus magnus (C.B.Clarke) Y.F.Deng, **comb. nov.** – *Gymnostachyum magnum* C.B.Clarke, J. Asiat. Soc. Bengal, Pt. 2, Nat. Hist. 74(3): 664 (1908). TYPE: Malaysia, Negri Sembilan, Bukit Tampin waterfall, May 1894, *J.S. Goodenough 1893* (holotype K; isotype SING!).

Distribution and habitat. This species is endemic to Peninsular Malaysia. Its habitat details are not well known.

Provisional IUCN Conservation Assessment. Currently, this species is only known from three localities in Peninsular Malaysia comprising only five, mostly fairly old, collections, but no attempt has yet been made to assess its frequency in the field. Given the lack of knowledge of the current status of the species it should be assessed as Data Deficient (DD) (IUCN, 2001, 2011).

Additional specimens examined: PENINSULAR MALAYSIA. **Kedah**: Katanh, Koh Mai Forest Reserve, 4 Apr 1938, *Kiah* s.n. (SING). **Negeri Sembilan**: Sungei Ujong, Bukit Sutu, 1 Nov 1885, *V.M. Alvins 1955* (SING). **Selangor**: Kajang, Sungei Lalauy, 9 Mar 1930, *C.F. Symington 22710* (K); ibidem, without date, *C.F. Symington 22763* (SING); ibidem, 28 Mar 1931, *C.F. Symington 22947* (SING).

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